

ABSTRACT

A method and apparatus for performing signal-to-interference ratio (SIR) estimation in wireless communications, using a demodulator output, such as a Rake output or a multi-user detection (MUD) receiver output. The demodulator output is fed into a SIR estimator to perform the SIR estimation based on estimated average signal power and estimated average effective interference power. The estimated average signal power is based on a minimum value function used for determining a minimum value between a median based average power value and a mean based average power value. The SIR estimator reduces bias effects on SIR estimation, and is applicable to BPSK and QPSK modulation schemes, as well as higher order modulation schemes such as 8-PSK and 16-QAM. A correction term is used as a function of the mean and median values to further mitigate the bias effect.